



ALTERNATIVE RESTORATION TECHNOLOGY TEAM



Leaders in Innovative Environmental Cleanup Technology

ARTT is a NAVFAC-chartered workgroup established to promote and implement the use of cost effective, innovative technologies and methods in the Navy Installation Restoration (IR) program.

ARTT is designated to be an integral part of CNO's SMART Programs and Technologies.

January 2002

OBJECTIVES

- Identify barriers that inhibit implementation of innovative technologies and methods.
- Recommend process changes to management that eliminate or minimize barriers.
- Propose policies and recommend procedures and guidance for implementing innovative technologies and methods.
- Develop and recommend initiatives and strategies that will support use of innovative technologies and methods.
- Identify potential sites and innovative technologies for demonstration projects.

MEMBERS

ARTT is made up of IR representatives from the Chief of Naval Operations (CNO), Commandant of the Marine Corps (CMC), Naval Facilities Engineering Command (NAVFAC) Headquarters and Naval Facilities Engineering Service Center (NFESC), and remedial technical managers (RTMs) and remedial project managers (RPMs) representing each of the NAVFAC Engineering Field Divisions and Activities (EFDs/EFAs).

PROGRESS AND ACCOMPLISHMENTS

In 2001, ARTT focused on promoting practical solutions to technology implementation issues, thereby integrating project quality with balanced program execution. Solutions for identified barriers include:

Partnerships

ARTT has established close ties with the Interstate Technology Regulatory Cooperation (ITRC), Environmental Protection Agency (EPA), United States Geological Survey (USGS) and the other DOD services. ARTT acts as an important link between these groups and cleanup personnel in the field.

Resources

ARTT provides the latest workgroup activities, information on remedial technologies, lessons

learned and other current efforts to the EFDs/EFAs. Two sources of this information include:

- Remedial Information Management System (RIMS) – An interactive web-based database that provides a comprehensive listing and independent evaluation of over 800 remediation technologies. ARTT has recommended the purchase of a corporate subscription in 2002.
- ARTT's Web Page
enviro.nfesc.navy.mil/erb select buttons: Navy Support, Workgroups, ARTT

Publications

ARTT members frequently assist in the development of technical protocols, reports, and articles. These publications provide up-to-date technology information and lessons learned to the environmental restoration community. ARTT promoted three publications in the past year that will assist with the implementation of a more cost-effective restoration program.

- "User's Guide for Polyethylene-Based Passive Diffusion Bag Samplers to Obtain Volatile Organic Compound Concentrations in Wells" was prepared by USGS with input from the Navy (through ARTT), Army, Air Force, EPA, and ITRC. This guide describes how these samplers can be used for obtaining concentrations of a variety of volatile organic compounds (VOCs). enviro.nfesc.navy.mil/erb/erb_a/restoration/technologies/invest/monitor/usgs-sampler-ug1.pdf and usgs-sampler-ug2.pdf.
- "Cost and Performance Report for the Geo-Cleanse Process Treatment Demonstration at Naval Air Station Pensacola, FL" was prepared by NFESC and SOUTHDIV. This report discusses how the chemical oxidation process was used to remediate chlorinated VOCs. enviro.nfesc.navy.mil/erb select buttons: Restoration, Technologies, Remediation, Physical/Chemical, Chemical Oxidation, In Situ.
- "Naval Surface Warfare Center, Dahlgren, VA Site 17 – 1400 Area Landfill, Soil Cap with Phytoremediation" was written by Ryan Mayer of CHESDIV. This article provided details of a

phytoremediation solution in the form of a vegetative cap. enviro.nfesc.navy.mil/erb select buttons: Public Outreach, Newsletters, RPM NEWS Newsletter, Summer 2001.

Field Projects

The Y0817 Technology Demonstration and Evaluation Program is a NAVFAC-sponsored program that identifies future technology needs, and funds the demonstration and evaluation of these technologies.

ARTT members actively participate in the Y0817 program, helping to further the process that matches “Dem-Val” funds with practical technology. This collaborative effort among NAVFAC, EFDs/EFAs, and NFESC demonstrates that Dem-Val investment in Navy environmental cleanup has a greater return when linked directly to practical field applications.

Y0817 projects with ARTT involvement include:

- Determining Timeframes Associated with Monitored Natural Attenuation,
- Toxicity Identification Evaluation (TIE) to Identify Risk-Causing Contaminants of Concern,
- Development of an Approach for Assessing Risks to Amphibians, and
- Electrokinetic Destruction of Chlorinated Solvents in Low Permeability Soils.

ARTT and the Y0817 Board selected two additional projects for 2002:

- In-situ Abiotic Reductive Dechlorination of Groundwater with Bi-metallic Nanoparticles, and
- Zero Valent Iron Injection Demonstration at Hunters Point Shipyard.

More information on any of these projects can be found at p2ashore.nfesc.navy.mil/cgi-bin/project_descriptions/press.cfm.

ARTT IN 2002

ARTT will continue to re-examine its function and usefulness in the ever-changing environment of the

Navy/Marine Corps IR Program. ARTT is committed to the promotion, implementation and demonstration of innovative technologies.

For 2002, ARTT projects include:

- TIE user’s guide and primer document,
- Standardized guidance manual for assessing risks to amphibians,
- Use of vegetable oil to enhance the bioremediation of chlorinated solvents,
- MNA timeframe analysis software, and
- Magnetic recovery of metals at a plating site.

Internal/External Technical Support

- ARTT members share EFD/EFA-specific knowledge with each other and disseminate this information to their offices.
- ARTT members participate in various Navy/Marine Corps workgroups and Cleanup Review Tiger Teams to provide technical support and promote innovative technology implementation.

Technology Initiatives and Technology Transfer

- ARTT members review NFESC’s Broad Agency Announcement (BAA) proposals for innovative technologies.
- ARTT members serve as IR focal points at the respective EFDs/EFAs to facilitate RPM access to innovative technologies available through the BAA process.
- ARTT members function as informal points-of-contact for technical data calls.

RPM Training Support

ARTT continues to support the Civil Engineer Corps Officers School in the development and update of curricula and training materials as they relate to innovative technologies.

POINTS OF CONTACT

If you are interested in participating in ARTT, contact any of the following:

EFA Chesapeake:
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EFA Northeast:
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EFA West:
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LANTDIV
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